

### § 401.8

a way that they can be raised or lowered in a manner that does not damage Seaway installations.

[61 FR 19551, May 2, 1996]

### § 401.8 Landing booms.

Vessels of more than 50 m in overall length shall be equipped with at least one adequate landing boom on each side.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[47 FR 51121, Nov. 12, 1982]

### § 401.9 Radiotelephone equipment.

(a) Self-propelled vessels, other than pleasure craft of less than 20.0 m in overall length, shall be equipped with VHF (very high frequency) radiotelephone equipment.

(b) The radio transmitters on a vessel shall:

(1) Have sufficient power output to enable the vessel to communicate with Seaway stations from a distance of 48 km; and

(2) Be fitted to operate from the conning position in the wheelhouse and to communicate on 156.55, 156.6, 156.65, 156.7, and 156.8 MHz.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[39 FR 10900, Mar. 22, 1974, as amended at 40 FR 11721, Mar. 13, 1975; 47 FR 51121, Nov. 12, 1982; 48 FR 20690, May 9, 1983; 61 FR 19551, May 2, 1996]

### § 401.10 Mooring lines.

(a) Mooring lines shall:

(1) Be of a uniform thickness throughout their length;

(2) Be fitted with a spliced eye not less than 2.4 m long;

(3) Have sufficient strength to check the vessel; and

(4) Be arranged so that they may be led to either side of the vessel as required.

(b) Unless otherwise permitted by an officer, only wire rope mooring lines with a breaking strength that complies with the minimum specifications set out in the table in this section shall be used for securing a vessel in lock chambers.

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(c) Synthetic lines may be used for mooring at approach walls, tie-up walls and docks within the Seaway.

TABLE

Overall length of vessels	Length of mooring line	Breaking strength
40 m or more but not more than 60 m .....	110 m	89 kN.
More than 60 m but not more than 90 m .....	110 m	134 kN.
More than 90 m but not more than 120 m .....	110 m	178 kN.
More than 120 m but not more than 180 m .....	110 m	250 kN.
More than 180 m but not more than 222.5 m .....	110 m	300 kN.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and sec. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[39 FR 10900, Mar. 22, 1974, as amended at 47 FR 51121, Nov. 12, 1982; 48 FR 20691, May 9, 1983; 48 FR 22545, May 19, 1983; 61 FR 19551, May 2, 1996]

### § 401.11 Fairleads.

Mooring lines, and synthetic hawsers where permitted under paragraph (b) or (c) of § 401.10, shall:

(a) Be led at the vessel's side through a type of fairlead acceptable to the Corporation and the Authority;

(b) Pass through not more than two inboard fairleads that are fixed in place and provided with free-running sheaves or rollers; and

(c) Where the fairleads are mounted flush with the hull, be permanently fendered to prevent the lines from being pinched between the vessel and a wall.

### § 401.12 Minimum requirements—mooring lines and fairleads.

(a) Minimum requirements in respect of mooring lines, which shall be available for securing on either side of the vessel, winches, and the location of fairleads on vessels are as follows:

(1) Vessels of 40 m or less in overall length shall have at least two mooring lines or hawsers that may be led through closed chocks and be hand held, one of which shall lead from the break of the bow and the other shall lead from the quarter.

(2) Vessels of more than 40 m but not more than 60 m in overall length shall have four mooring lines, two of which

shall be power operated by winches, capstans or windlasses and shall be led through a type of fairlead acceptable to the Corporation and the Authority, of which two mooring lines:

(i) One shall lead forward from the break of the bow and one astern from the quarter, or

(ii) One shall lead astern from the break of the bow and one forward from the quarter;

(3) The other two mooring lines required on vessels of more than 40 m but not more than 60 m may be led through closed chocks and may be hand held;

(4) Vessels of more than 60 m in overall length shall have four mooring lines, two of which shall lead from the break of the bow and two of which shall lead from the quarter, and

(i) All shall be power operated by the main drums of adequate power operated winches and not by capstans or windlasses; and

(ii) All shall be led through a type of fairlead acceptable to the Corporation and the Authority.

(5) Every vessel shall have a minimum of two spare mooring wires available and ready for immediate use.

(b) The following table sets out the requirements for the location of fairleads for vessels of 60 m or more in overall length:

TABLE		
Overall length of vessels	For mooring lines Nos. 1 and 2	For mooring lines Nos. 3 and 4
60 m or more but not more than 90 m.	Between 10 m and 25 m from the stern.	Between 10 m and 25 m from the stern.
More than 90 m but not more than 120 m.	Between 12 m and 30 m from the stern.	Between 15 m and 35 m from the stern.
More than 120 m but not more than 150 m.	Between 12 m and 35 m from the stern.	Between 15 m and 40 m from the stern.
More than 150 m but not more than 180 m.	Between 15 m and 40 m from the stern.	Between 20 m and 45 m from the stern.
More than 180 m but not more than 222.5 m.	Between 20 m and 50 m from the stern.	Between 20 m and 50 m from the stern.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[39 FR 10900, Mar. 22, 1974, as amended at 47 FR 51121, Nov. 12, 1982; 48 FR 20691, May 9, 1983; 55 FR 48598, Nov. 21, 1990]

#### § 401.13 Hand lines.

Hand lines shall:

(a) Be made of manila or other material acceptable to the Corporation and the Authority, and

(b) Be of uniform thickness and have a diameter of not less than 12 mm and not more than 20 mm and a minimum length of 35 m.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[39 FR 10900, Mar. 22, 1974, as amended at 49 FR 30935, Aug. 2, 1984; 61 FR 19551, May 2, 1996]

#### § 401.14 Anchor marking buoys.

An orange colored anchor marking buoy of a type approved by the Corporation and the Authority, fitted with 22 m of suitable line, shall be secured directly to each anchor so that the buoy will mark the location of the anchor when the anchor is dropped.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[47 FR 51122, Nov. 12, 1982]

#### § 401.15 Stern anchors.

Every vessel of more than 110 m in overall length, the keel of which is laid after January 1, 1975, shall be equipped with a stern anchor.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[48 FR 20691, May 9, 1983]

#### § 401.16 Propeller direction alarms.

Every vessel of 1600 gross registered tons or more shall be equipped with—

(a) Propeller direction and shaft r.p.m. indicators located in the wheelhouse and the engine room; and

(b) Visible and audible wrong-way propeller direction alarms located in the wheelhouse and the engine room, unless the vessel is fitted with a device which renders it impossible to operate engines against orders from the bridge telegraph.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[41 FR 12227, Mar. 24, 1976, as amended at 45 FR 52378, Aug. 7, 1980]